

## ABSTRACT OF THE DISCLOSURE

5       A port queue includes a first memory portion having a first memory access time and a second memory portion having a second memory access time. The first memory portion includes a cache row. The cache row includes a plurality of queue entries. A packet pointer is enqueued in the port queue by writing the packet pointer in a queue entry in the cache row in the first memory. The cache row is transferred to a packet vector in the second memory. A packet pointer is dequeued from the port queue by reading a queue entry from the packet vector stored in the second memory.